REMARKS

This response is intended as a full and complete response to the final Office Action mailed July 17, 2007. In the Office Action, the Examiner notes that claims 1, 6-12 and 14 are pending and rejected.

In view of both the following remarks, Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. §103. Thus, Applicants believe that all of the claims are now in allowable form.

It is to be understood that Applicants do not acquiesce to the Examiner's characterizations of the art of record or to Applicants' subject matter recited in the pending claims. Further, Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant response.

REJECTIONS

35 U.S.C. §103

The Examiner has rejected claims 1, 6, 9 and 10 under 35 U.S.C. §103(a) as being unpatentable over Boukobza et al. (U.S. Patent No. 6,122,664, hereinafter "Boukobza) and Robinson et al. (U.S. Patent 6,570,867, hereinafter "Robinson"). Applicants respectfully traverse the rejection.

Claim 1

According to MPEP §2143, to establish a prima facie case of obviousness under §103, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Office Action failed to establish a *prima facie* case of obviousness, because the combination of Boukobza and Robinson fails to teach or suggest all the claim limitations. Namely, the combination of Boukobza and Robinson fails to teach or suggest at least the features of monitoring the rate of change of usage of resources at one or more nodes and reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a threshold, as claimed in Applicants' claim 1.

Boukobza discloses a process for monitoring a plurality of object types of a plurality of nodes including a management node in an information system. As disclosed in Boukobza, monitoring is configured and then distributed in a filtered way from the management node to autonomous agents installed in each of the nodes to be monitored in order either to locally process the different object types or all of the objects of a domain called a global object, or to feed back information to be displayed in a graphical interface of the management node. Boukobza further discloses that each agent includes a plurality of modules specific to the different object types or to a particular domain, and that each module measures static and dynamic parameters particular to the object type it monitors and collects the measurements. (Boukobza, Abstract).

Boukobza, however, fails to teach or suggest at least the features of monitoring a rate of change of usage of resources at one or more nodes and reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a threshold, as claimed in Applicants' claim 1. Rather, although Boukobza states that a module on a node that is being monitored measures both static and dynamic parameters particular to an object that the module monitors, Boukobza fails to teach or suggest monitoring a rate of change of usage of a resource, as claimed in Applicants' claim 1. A generic statement that a node being monitored measures dynamic parameters, as taught in Boukobza, does not teach or suggest monitoring a rate of change, much less a rate of change of the usage of the resources of a node, as claimed in Applicants' claim 1.

In the Office Action, the Examiner cites specific portions of Boukobza (namely, Col. 1, Lines 33-35 and Col. 2, Lines 21-55), asserting that the cited portions of Boukobza disclose Applicants' limitations of "assigning a parameter to each of a plurality

of nodes of the network, wherein each parameter is indicative of a rate of change of usage of said resources of the node," "locally monitoring, at each of the nodes, the rate of change of the usage of said resources of the node," and "reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a first threshold," as claimed in Applicants' claim 1. (Office Action, Pg. 2).

The cited portions of Boukobza, however, fail to teach or suggest any parameter indicative of a rate of change of usage of a resource or monitoring a rate of change of usage of a resource. Rather, the cited portions of Boukobza merely describe generic parameters that may be measured or tested relative to predefined thresholds. The cited portions of Boukobza do not teach or suggest monitoring a rate of change of usage of a resource. Applicants respectfully request that the Examiner specifically point out where in the cited portion of Boukobza, or any other portion of Boukobza, there is any teaching or suggestion of a monitoring a rate of change of usage of a resource.

Thus, since Boukobza fails to teach or suggest a rate of change of usage of a resource, Boukobza must fail to teach or suggest at least the limitations of "assigning a parameter to each of a plurality of nodes of the network, wherein each parameter is indicative of a rate of change of usage of said resources of the node," "locally monitoring, at each of the nodes, the rate of change of the usage of said resources of the node," and "reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a first threshold," as claimed in Applicants' claim 1.

Furthermore, Robinson fails to bridge the substantial gap between Boukobza and Applicants' claim 1.

In general, Robinson discloses a network management framework for monitoring network-level concepts of routes and paths. As disclosed in Robinson, a route and path management system includes a data collector for collecting data from individual network elements, a management server for processing the collected data into manageable route and path objects, and a graphical user interface for allowing a user to manage and monitor routes and paths. (Robinson, Abstract).

Robinson, however, fails to teach or suggest at least the features of monitoring the rate of change of usage of resources at one or more nodes and reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a threshold.

Rather, Robinson merely describes a polling rate, which, as stated in Robinson, is a rate at which network elements are polled by a management system. (Robinson, Col. 7, Lines 20-25). A polling rate at which network elements are polled by a management system, as taught in Robinson, is not a rate of change of usage of a resource at a node, as claimed in Applicants' claim 1.

Thus, since Robinson fails to teach or suggest a rate of change of usage of a resource, Robinson must fail to teach or suggest at least the limitations of "assigning a parameter to each of a plurality of nodes of the network, wherein each parameter is indicative of a rate of change of usage of said resources of the node," "locally monitoring, at each of the nodes, the rate of change of the usage of said resources of the node," and "reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a first threshold," as claimed in Applicants' claim 1.

Thus, since Boukobza and Robinson each fails to teach or suggest a rate of change of usage of a resource, any permissible combination of Boukobza and Robinson must fail to teach or suggest a rate of change of usage of a resource and, therefore, any permissible combination of Boukobza and Robinson must fail to teach or suggest suggest at least the limitations of "assigning a parameter to each of a plurality of nodes of the network, wherein each parameter is indicative of a rate of change of usage of said resources of the node," "locally monitoring, at each of the nodes, the rate of change of the usage of said resources of the node," and "reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a first threshold," as claimed in Applicants' claim 1.

Furthermore, since Boukobza and Robinson each fail to teach or suggest monitoring a rate of change of usage of a resource, Boukobza and Robinson must each also fail to teach or suggest other limitations of Applicants' claim 1 associated with a rate of change of usage of a resource. Specifically, Boukobza and Robinson must also

fail to teach or suggest each of the limitations of "determining whether a sum of the currently reported rates of change of usage of node resources, received in response to the poll initiated by the management station, exceeds a second threshold" and "generating an alarm if the sum of the currently reported rates of change of usage of node resources exceeds the second threshold, else updating the time interval," as claimed in Applicants' claim 1.

Thus, Boukobza and Robinson, alone or in combination, fail to teach or suggest Applicants' claim 1, as a whole. Therefore, independent claim 1 is patentable over Boukobza and Robinson and, thus, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Furthermore, claim 6 depends directly from independent claim 1 and recites additional limitations therefor. Therefore, dependent claim 6 also is not obvious over Boukobza in view of Robinson, and, thus, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

Accordingly, Applicants respectfully request that the rejection be withdrawn.

Claim 9

As described herein, Boukobza discloses a process for monitoring a plurality of object types of a plurality of nodes including a management node in an information system and Robinson discloses a network management framework for monitoring network-level concepts of routes and paths.

Boukobza and Robinson, however, alone or in combination, fail to teach or suggest Applicants' claim 9, as a whole. Namely, Boukobza and Robinson, alone or in combination, fail to teach or suggest at least the limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," as claimed in Applicants' claim 9. Thus, Boukobza and Robinson, alone or in combination, fail to teach or suggest Applicants' claim 9, as a whole.

Furthermore, Applicants note that, according to MPEP §2142, "[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of

obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness."

The Examiner has failed to produce a prima facie case of obviousness of Applicants' claim 9. Specifically, the Examiner has failed to provide any arguments or evidence addressing Applicants' claim 9 limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold." The Examiner simply does not address this limitation anywhere in the Office Action. Rather, the Examiner merely refers to the limitations of Applicants' claim 1 in applying a rejection of Applicants' claims 1 and 9, without regard for the differences between Applicants' claim 1 and claim 9. Accordingly, Applicants respectfully submit that the Examiner has failed to produce a prima facie case of obviousness of Applicants' claim 9.

As such, independent claim 9 fully satisfies the requirements of 35 U.S.C. §103 and is patentable over Boukobza and Robinson. Accordingly, Applicants respectfully request that the rejection be withdrawn.

Claim 10

As described herein, Boukobza discloses a process for monitoring a plurality of object types of a plurality of nodes including a management node in an information system and Robinson discloses a network management framework for monitoring network-level concepts of routes and paths.

As further described herein, with respect to claim 1, Boukobza and Robinson, alone or in combination, fail to teach or suggest a rate of change of usage of a resource.

Thus, for at least the reasons described herein with respect to claim 1, Applicants respectfully submit that Boukobza and Robinson, alone or in combination, fail to teach or suggest at least the limitation of "reporting to a management station of the network when a rate of change of usage of said node resource exceeds the local threshold as determined using local monitoring of the node resource," as claimed in Applicants' claim 10.

Additionally, Applicants respectfully submit that Boukobza and Robinson, alone or in combination, also fail to teach or suggest a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station. Thus, Boukobza and Robinson, alone or in combination, must also fail to teach or suggest at least the limitation that "said rate of change of usage of said node resource is determined using a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station," as claimed in Applicants' claim 10.

Furthermore, Applicants note that, similar to claim 9, the Examiner has failed to provide any arguments or evidence addressing Applicants' claim 10 limitation of "wherein said rate of change of usage of said node resource is determined using a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station." The Examiner simply does not address this limitation anywhere in the Office Action. Rather, the Examiner merely refers to the limitations of Applicants' claim 1 in applying a rejection of Applicants' claims 1 and 10, without regard for the differences between Applicants' claim 1 and claim 10. Accordingly, Applicants respectfully submit that the Examiner has failed to produce a prima facie case of obviousness of Applicants' claim 10.

As such, independent claim 10 fully satisfies the requirements of 35 U.S.C. §103 and is patentable over Boukobza and Robinson. Accordingly, Applicants respectfully request that the rejection be withdrawn.

Claims 7, 8, 11, 12 and 14

Claims 7, 8, 11, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mandal et al. (U.S. Patent No. 6,170,009, hereinafter "Mandal") and Robinson et al. (U.S. Patent No. 6,570,867, hereinafter "Robinson"). Applicants respectfully traverse the rejection.

Claim 7 recites the features of monitoring the rate of change of usage of resources at one or more nodes and reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a threshold. Mandal and Robinson, however, alone or in combination, fail to

teach or suggest those features.

In general, Mandal teaches control of devices on a network using policies. Specifically, Mandal discloses a system that allows an operator to specify a policy for controlling a group of devices. (Mandal, Abstract). In general, Robinson discloses a network management framework for monitoring network-level concepts of routes and paths. As disclosed in Robinson, a route and path management system includes a data collector for collecting data from individual network elements, a management server for processing the collected data into manageable route and path objects, and a graphical user interface for allowing a user to manage and monitor routes and paths. (Robinson, Abstract).

Mandal and Robinson, however, alone or in combination, for at least the reasons described in Applicants' response of December 22, 2006 to the Office Action dated September 26, 2006, as well as in Applicants' response of May 2, 2007 to the Office Action dated February 8, 2007, fail to teach or suggest at least the features of monitoring the rate of change of usage of resources at one or more nodes and reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a threshold.

In the present Office Action, the Examiner asserts that "Mandal describes a policy in which a network management system should allow no more than 30% (i.e., a threshold) of total bandwidth for video traffic transmission which depends on time. On col. 7, lines 29-67 Mandal describes the implementation of policies to control the flow of packets (i.e., traffic) with respect to time across the network. Therefore in order to implement such policy it has to monitor at periodic times (col. 6, lines 1-27) the rate of change of a parameter against a certain threshold." (Office Action, Pg. 7). Applicants respectfully disagree.

Applicants respectfully maintain that Mandal does not teach a rate of change of usage of a resource. Rather, Mandal teaches a policy in which a value of a resource is compared against a threshold. As taught in Mandal, the resource that is monitored is the percentage of available bandwidth that is used for video traffic. Mandal does not teach a policy in which a rate of change of the resource (percentage of video traffic) is compared to a threshold; rather, Mandal teaches a policy in which the current value of

the resource (percentage of video traffic) is compared to a threshold. As such, a value of the usage of a resource, as taught in Mandal, is not a rate of change of usage of a resource, as claimed in Applicants' claim 10.

Applicants note that differences between Mandal and Applicants' claim 7 may be better understood with respect to an example. As taught in Mandal, the current value of the percentage of video traffic is measured and compared to a threshold. For example, assume that a current value of the percentage of video traffic is measured to be 25%, and that this measured value is compared to a threshold (e.g., 30%). This measurement of a value of the current percentage of video traffic simply does not teach or suggest a rate at which the percentage of video traffic changes. For example, assume that over the last 10 seconds, the percentage of video traffic has increased from 10% to 40%. This example corresponds to a rate of change of the usage of the resource (e.g., in this example, the percentage of video traffic) of 4% per second. Thus, from this example, it is clear that monitoring a value of usage of a resource, as taught in Mandal, does not teach or suggest monitoring a rate of change of usage of a resource, as claimed in Applicants' claim 7.

In other words, as taught in Mandal, an instantaneous value of the usage of a resource is measured. An instantaneous value of the usage of a resource, as taught in Mandal, is simply not a rate of change of the usage of a resource, as claimed in Applicants' claim 7. A rate of change is clearly measured using a time interval, or some other interval by which rate of change may be measured. There is no time interval in Mandal. Mandal is devoid of any teaching or suggestion of monitoring any rate of change. As such, since Mandal fails to teach or suggest a rate of change, Mandal must also fail to teach or suggest a rate of change of usage of a resource, as claimed in Applicants' claim 7.

Thus, since Mandal and Robinson each fail to teach or suggest a rate of change of the usage of resources, any permissible combination of Mandal and Robinson must also fail to teach or suggest a rate of change of the usage of resources. Thus, Mandal and Robinson, alone or in combination, fail to teach or suggest Applicants' claim 7, as a whole.

Therefore, independent claim 7 is patentable over Mandal and Robinson and, thus, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Similarly, independent claim 8 recites features similar to the features of claim 7. Namely, independent claim 8 also includes the feature of a rate of change of the usage of resources. As such, for at least the same reasons discussed herein with respect to claim 7, independent claim 8 also is patentable over Mandal and Robinson and, thus, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

Claims 11, 12 and 14 depend directly from independent claim 8 and recite additional limitations therefor. Therefore, dependent claims 11, 12 and 1 also are not obvious Mandal and Robinson, and, thus, fully satisfy the requirements of 35 U.S.C. §103 and is patentable thereunder.

Accordingly, Applicants respectfully request that the rejection be withdrawn.

SECONDARY REFERENCES

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to Applicants' disclosure than the primary references cited in the Office Action. Therefore, Applicants believe that a detailed discussion of the secondary references is not necessary for a full and complete response to this Office Action.

CONCLUSION

Thus, Applicants submit that all of the claims presently in the application are non-obvious and are patentable under the provisions of 35 U.S.C. §103. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Michael Bentley or Eamon J. Wall at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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